

## ABSTRACT

1 / 1 DWPI - ©The Thomson Corp. - image

AN - 1998-075091 [07]

XP - N1998-060086

TI - Automated multiple object pressure testing using comparator to compare individual test pressures with test protocol and to drive stepper motor-driven displacement pump

DC - Q57 S02

PA - (OMVE) OMVE NETHERLANDS BV

IN - VAN OORD G

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IC - G01M-003/40; F15B-019/00; G01M-003/26

AB - NL1006954 C

A micro-stepper-motor (1) drives an axial plunger pump (2). Each of the outputs (3/1...3/n) has a pressure sensor (4/1...4/n) and electrically-controlled shut-off valve (5/1...5/n). Each test object (9/1...9/n) is subjected simultaneously to its own test pressure or regime. Test pressures are measured in the comparator PLC (6) and compared with the test protocol. PLC outputs are used by the driver module (7) to control the stepper motor (1). They are also displayed on the VDU (8). If a leak is detected or a test object fails to reach the set pressure in a given time, a warning is given.

ADVANTAGE: Small (4cc) swept volume of plunger pump, high resolution (4000 increments per revolution) and large dynamic range (0-3000 RPM) result in highly accurate control. Multiple, individual tests involving large volume can be run simultaneously instead of usual one. Pressure rises in large steps caused by discontinuous pump running is overcome.

MC - EPI: S02-F04B S02-J06B

UP - 1998-07

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